

REMARKS

1. Claims 1-20 were previously pending. Claims 1-20 were rejected. Claims 1-20 remain under consideration.
2. - Claims 1, 2, 4, 5, 10-13 and 16-20 have been rejected under 35 U.S.C. 102(a).
 - Claims 3, 6-9, 14 and 15 have been rejected under 35 U.S.C. 103(a).

Rejection of Claims 1, 2, and 6 under 35 U.S.C. 102 (a) Over Atsumi et al.

3. The Examiner has rejected Claims 1, 2, 4, 5, 10-13 and 16-20 under 35 U.S.C. 102 (a) as being anticipated by Atsumi et al. (JP 2000217509).

The Examiner states that "Atsumi et al discloses a freshness retaining composition that includes both the recited chitosan and the recited hinokitiol (an essential oil)", that "Atsumi et al discloses the two antibacterial agents to be within the disclosed amounts, so that the composition of Atsumi et al would inherently achieve any synergistic result that applicants' composition is capable of achieving", and that "Atsumi et al also teaches bringing vegetables including cut vegetables into direct contact with the freshness retaining/antibacterial composition" (Paper No. 6, Page 2).

Applicant respectfully traverses the rejection. It is stated in the MPEP (MPEP 2131) that "[A] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" and that "[T]he identical invention must be shown in as complete detail as is contained in the ... claim."

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The instant claims recite "having antibacterial and **antifungal** properties" and "having antibacterial and **antifungal** properties comprising a chitosan salt and an essential oil in a **synergistically effective** amount." The phrase "antifungal" has a specific definition in the art; therefore, the Examiner's phrase "antibacterial agent" does not encompass "antifungal". Atsumi et al disclose "suppressing the propagation of microorganisms" (Abstract, Line 2) but do not specifically point to "antifungal". Atsumi et al further disclose "sterilizing treatment" (Abstract, Line 7) and "sterilization treatment" (Abstract, Line 9), but there is no definition of what is encompassed by "sterilization".

In addition, the synergistically effective amount is a critical element of the invention, and the reference does not point to amounts which would meet that limitation. The reference teaches chitosan present in a range of 0.005 - 10 wt% while the instant application teaches a range of 0.0016 - 0.1 wt% (expressing in equivalent units). Moreover, the essential oil is present in two completely different ranges, i.e. 0.025% - 0.1% (the invention) and 5 - 20% for the reference. While there is a small overlap, the chitosan range is different, and that for the essential oil is significantly different. Moreover, in the amounts pointed to in the reference (which are significantly larger than that of the invention), synergism could not be seen.

This rejection is overcome since it is believed that the claims patentably distinguish from Atsumi *et al.*

In view of the above remarks, it is respectfully requested that the rejection of Claims 1, 2, 4, 5, 10-13 and 16-20 under 35 U.S.C. 102 (a), be withdrawn.

Rejection of Claims 1-4, 6, and 9 under 35 U.S.C.103 (a)

4. The Examiner has rejected Claims 3, 6-9, 14 and 15 under 35 U.S.C. 103(a) as being unpatentable over Atsumi *et al.* (JP 2000217509) in view of Takahashi (U.S.

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Patent 6, 352,727).

In view of the above remarks, it is respectfully requested that the rejection of Claims 3, 6-9, 14, and 15 under 35 U.S.C. 103 (a), be withdrawn. There is nothing in Takahashi which overcomes the deficiencies of the Atsumi reference as discussed supra.

CONCLUSION

In view of the above amendments and remarks, it is believed that all of the claims and the specification are in condition for allowance. Accordingly, it is respectfully requested that the rejections be withdrawn and that the instant application be allowed to issue. If any issues remain to be resolved, the Examiner is invited to telephone the undersigned at the number below.

Respectfully submitted,

June 4, 2003

Date

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